Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India

SHORT SYNOPSIS

Submitted in partial fulfillment of the requirement of the degree of

DOCTOR OF PHILOSOPHY

by

Vikesh Lalit
MRUMCDN012K210040

Under the supervision of

Dr. Yogita Sharma
Professor
Manav Rachna University

Department of Management and Commerce
School of Management and Commerce

MANAV RACHNA UNIVERSITY
Sector-43, Aravali Hills, Faridabad

Year 2024

MANAV RACHNA UNIVERSITY

MANAV RACHNA UNIVERSITY
Sector-43, Aravali Hills, Faridabad

Date: 23 February 2024

DECLARATION BY THE SCHOLAR

I hereby declare that the short synopsis entitled **Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India** being submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in the **Department of Management and Commerce** under the **School of Management and Commerce** of Manav Rachna University, Faridabad during the academic year 2023-24

It is the work that is expected to be carried out under the supervision of **Dr. Yogita Sharma.**

Further, it is declared that the short synopsis is within the plagiarism limit and copy of the same is attached as per the University norms.

Vikesh Lalit

Vikesh Lalit
MRUMCDN012K210040

MANAV RACHNA UNIVERSITY

Sector-43, Aravali Hills, Faridabad

Date: 23 February 2024

CERTIFICATE BY SUPERVISOR

This is to certify that, the short synopsis entitled **Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India** is an original piece of work done by research scholar Vikesh Lalit under the supervision of **Dr. Yogita Sharma** for the degree of Doctor of Philosophy in the **Department of Management and Commerce** under the **School of Management and Commerce** of Manav Rachna University, Faridabad during the academic year 2023-24

Further, it is certified that the short synopsis is within the plagiarism limit and copy of the same is attached as per the University norms.

Dr. Yogita Sharma
Professor
Manav Rachna University

Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India

ABSTRACT

Healthcare start-ups that promise to revolutionize drug discovery, delivery, and accessibility are booming in the Indian pharmaceutical industry. But turning their creative ideas into profitable ventures means negotiating a challenging operational environment. This study explores these issues by looking at the complex rules, financial limitations, shortages of skilled labor, and complex supply chains that prevent these businesses from expanding and succeeding. The scenario gets more complicated when trying to construct ethical and sustainable income models, engage doctors with new technologies, and build trust. Through the examination of case studies, stakeholder interviews, and literature analysis, this research attempts to provide a thorough knowledge of these operational constraints and identify feasible solutions. The results will provide insightful information to help start-ups navigate the difficult pharmaceutical industry, legislators create legislation that will help, and investors weigh the prospects and risks in this fast-paced industry. In the end, getting past these operational obstacles would enable healthcare start-ups to reach their full potential and add to India's pharmaceutical industry's innovative, efficient, and more accessible landscape.

Keyword: Healthcare, Startup, Pharma, Supply Chain, Operational Challenges

CONTENTS

S. No.	Description	Page No.
1	Introduction 1.1 Overview 1.2 Challenges of Healthcare Startups	1-3
2	Review of related Literature	4-8
3	Description of Broad Area 1 Definitions of Key Terms 2 Research Gap 3 Problem Statement	9-10
4	Objectives of the Study	10-11
5	Conceptual framework and Hypotheses of the Study	11-12
6	Research Design and Methodology 1 Methodology to be adopted 2 Variable of the Study 3 Data Collection 4 Sample Selection 5 Data Analysis	12-14
7	Implications and expected outcome of the Research	14
8	References	14-17

1. Introduction

1.1 *Overview*

The Indian healthcare industry, valued at USD 372 billion in 2022 and growing a CAGR of 22% which is projected to reach more than USD 500 billion by 2025 (IBEF, 2023), has become the largest contributor to Indian economy in terms of Revenue and employment. As per NSDC estimates it can generate over 5 Lac new jobs every year, currently healthcare sectors employees approx. 4.7 million people (NITI Aayog, 2021). Currently Major Segments in Indian Healthcare industry are Hospitals, Pharmaceuticals, Diagnostics, Medical Devices, Health Insurance, telemedicine and Medical Tourism.

Drivers of demographics

India's burgeoning population, currently exceeding 1.4 billion, fuels the demand for healthcare services. With an aging demographic and rising life expectancy, the need for chronic disease management and geriatric care is escalating. Additionally, changing lifestyles and growing urbanization contribute to the prevalence of lifestyle disorders like diabetes, affecting population. This confluence of factors creates a vast and diverse healthcare landscape with evolving demands. Recognizing the critical role of healthcare in national development, the Indian government has launched several pivotal initiatives. Ayushman Bharat, the flagship program aiming to provide universal health coverage to over 500 million Indians, stands as a testament to this commitment. Investments in medical infrastructure further demonstrate the government's focus on strengthening healthcare delivery (NITI Aayog, 2021). However, challenges remain in ensuring equitable access and quality care across diverse regions and income groups.

Technological Revolution and Innovation Landscape

The Indian healthcare industry is witnessing a wave of technological advancements. Telemedicine, is bridging geographical disparities and improving access to specialists. Artificial intelligence (AI) is revolutionizing diagnostics and medical imaging, while big data analytics offers insights for optimizing resource allocation and disease prevention. E-pharmacy and pharmacy chain is expanding footprints across India. India's comparatively cheap cost of clinical research has made it a hub for R&D activity for global firms. These advancements not only enhance efficiency but also hold immense potential for personalized medicine and improved patient outcomes.

Investment Opportunities and Participation

The Indian healthcare industry presents a lucrative investment opportunity. Government is introducing various policies and entrepreneurship programs by partnering with different organizations to facilitate innovation. Public-private partnerships (PPPs) are playing a crucial role in infrastructure development and knowledge sharing, fostering innovation and expansion. This influx of capital fuels research and development in pharmaceuticals, medical devices, and biotechnology, propelling advancements in various healthcare segments. However, streamlining regulations and fostering a conducive business environment are crucial to attract further investments and encourage sustained growth.

1.2 ***Challenges of Healthcare Startups***

Healthcare start-ups in the pharmaceutical sector play a crucial role in driving innovation, improving patient outcomes, and addressing gaps in the healthcare ecosystem. Indian pharma sector is witnessing an exciting wave of healthcare start-ups, brimming with the potential to revolutionize drug discovery, delivery, and accessibility for millions (Invest India, 2023). However, these ventures encounter numerous operational challenges in India that hinder their growth and sustainability. The purpose of this problem statement is to highlight the operational difficulties faced by Indian healthcare start-ups in the pharmaceutical industry.

Regulatory Compliance: Healthcare start-ups in the pharma sector face complex regulatory frameworks, often requiring rigorous approvals from regulatory bodies. Navigating through these regulations can be time-consuming and resource-intensive, delaying product launches and hindering market entry.

Access to Funding: Securing adequate funding is a persistent challenge for healthcare start-ups in India. Investors may be hesitant due to the high-risk nature of pharmaceutical ventures, making it difficult for these start-ups to raise capital for research, development, and market expansion.

Market Access and Distribution: Establishing a robust distribution network and gaining market access can be challenging for healthcare start-ups. The pharmaceutical industry in

India is highly competitive, and well-established players may dominate distribution channels, limiting the reach of new entrants.

Intellectual Property Protection: Protecting intellectual property is crucial for the success of pharmaceutical start-ups. However, the process of obtaining patents and defending intellectual property rights can be cumbersome, exposing these ventures to the risk of imitation and infringement.

Talent Acquisition and Retention: Attracting skilled professionals in the pharmaceutical and healthcare sectors is a significant challenge. The scarcity of specialized talent, coupled with intense competition for skilled personnel, makes it difficult for start-ups to build and retain a qualified workforce.

Technology Adoption: Keeping pace with technological advancements is critical in the pharmaceutical industry. However, healthcare start-ups often face challenges in adopting and integrating innovative technologies, leading to inefficiencies and hindering competitiveness.

Ultimately, overcoming these operational hurdles is crucial for unlocking every possibility for healthcare start-ups. We can create the conditions for a greater accessible, efficient, and innovative pharmaceutical ecosystem in India, one that benefits patients, healthcare providers, and the nation as a whole.

2. Review of Related Literature

The research did not encompass papers that were not relevant to the research field. The screening process for papers was conducted based on the published literature that pertained to the keywords of our proposed title. Below are some of the literature sources that were reviewed and utilized in our study:

Chakraborty et.al. (2023) STOF framework is used, this study current emphasized the importance of regulation management, which includes the ability to minimize challenges and policies, for health-tech firms. In the context of the developing e-health system, this study examined the notable failure angle that runs parallel to the quick rise of health-tech businesses. In a very dynamic healthcare sector, the research aimed to determine the crucial success determinants for health-tech businesses. The results generally showed how important it is for entrepreneurs to have the correct experience in order to meet needs that are critical, such as those of clinicians, consumers, the market, and regulatory requirements. Furthermore, ongoing advancement and monitoring offer a comprehensive and effective strategy for generating money for a venture over the long term to accomplish success. The sectors stakeholders can benefit greatly from the recognized CSFs' guidance. Subsequent studies can investigate the connections between them in order to reinforce the success trajectory.

Jain et.al. (2023) The potential for increased accessibility to high-quality healthcare in India through digitization of healthcare might be extremely beneficial for underprivileged people and communities. Healthcare professionals that are up to date on digital trends are using telemedicine to perform tests and treatments, such as home health screenings, but the nation's infrastructure is not yet equipped to handle this approach. Data protection rules in India must address an array of issues. The digitalization of healthcare in India is fraught with ethical and legal issues. Safeguarding user privacy, giving precedence to informed consent, and promoting the right to healthcare access are essential components that should be clearly incorporated into a rights-based health framework, in accordance with constitutional principles.

Sreenivasan et.al. (2022) The research examines the efficacy of technology in facilitating information and communication within the healthcare industry, along with the prospects of healthcare start-ups in the future. One possible direction for the industry's future is the incorporation of digital health into everyday living. The paper also emphasizes the importance of creating conducive conditions for health-tech entrepreneurship and the influence of technology on entrepreneurial factors for the formation of startups in poor nations. The findings highlight the significance of adopting new technologies and the potential impact of virtual reality and big data on the healthcare industry. The paper ends by suggesting topics for more investigation, such as the need to look at the business plans and legal challenges faced by health-tech businesses.

Festa et.al. (2022) This paper highlighted that India has been producing an increasing number of pharmaceuticals, medicinal compounds, and botanicals for medical use each year. The nation exports a lot of generic medications, which have a significant impact on the markets in America and Europe. Although the industry's infrastructure and domestic companies' capacity for research and development have significantly increased recently, there are still many obstacles to overcome, primarily those associated with regulation on pricing, fragmentation of sector, and intellectual property. It is hardly unexpected that all of them have direct or indirect connections to patents, which are highly debated subjects in the nation's industry. However, a large portion of the population in India lacks access to medicine due to tougher patent laws, given the country's large population and low per capita income. In India and throughout South Asia, the cost of medications is a serious problem that can mean the difference between life and death. Ultimately, despite numerous worries, the study's analysis of the present and future scenarios shows that, overall, the Indian pharmaceutical industry is doing well economically, commercially, and in terms of business. The industry will likely encounter a genuine challenge in finding a sustainable equilibrium between the societal demand for accessible healthcare and the reasonable aspirations for innovative progress from a business standpoint.

Ilavarasan et.al. (2021) The paper showed that by emphasizing innovation and proactivity, health-tech entrepreneurs might reach the underserved market and lower the cost of providing healthcare services. In their constant search for new markets, health-tech entrepreneurs keep their focus on the demands of consumers and healthcare service providers. By actively seeking opportunities, initiating new services, and anticipating

future healthcare market demands, the potential arises for the implementation of novel healthcare delivery models. However, in order to establish and acquire value in the market, health-tech firms must overcome numerous obstacles, including the danger of not surviving. In this paper, Leximancer tool was used to explore themes in the literature in order to learn about health-tech companies in the delivery of healthcare services. Contribution to the subject was made by drawing conclusions from previous research on five important themes, which aids in understanding the general structure of the health-tech business ecosystem. The difficulties encountered in each area, including those related to technology, practical business models, and customer needs, were discussed in this review.

Fernando et.al. (2020) The methodical strategy of searching the literature for research-related material is used in this study. 64 articles from search results were used in this investigation. In this globalized era, supply chain management implementation increases industry competitiveness. The company's competitive success can be attributed to the significance of its supply chain management strategy. The problem, which is a significant issue in the pharmaceutical industry, was discovered through the results of the searches. It includes, but is not limited to, the following: capacity planning, plant design and networking, e-commerce and IT, inventory management, outsourcing, logistics upside down, lean supply chain issues, green performance metrics, people, and information technology. These searches also turn up the United States, India, the United Kingdom, Italy, Turkey, and China, which is a supply chain growth leader. The effectiveness of supply chain management in the pharmaceutical sector is significantly improved by this strategic matter.

Abhinandan et.al. (2018) The study runs into HRM-related difficulties. The main issues hospital managers face with regard to HRM are low staff satisfaction, lack of initiative and commitment, a lack of team spirit, unfavorable working conditions, understaffing, absenteeism, shortage of skilled labour, and conflict among staff members. These issues could have been resolved by implementing effective and efficient HRM practices. Most of the literature highlights the significance of managing human resources in order to reach the objectives of healthcare institutions. It stresses the need for continuous training of hospital employees and nurses to enhance the quality of healthcare services. The research also illustrates the significant influence that human resources management has on healthcare

quality. Ultimately, a dedicated, motivated, and well-trained medical workforce is essential for the effectiveness of national healthcare reform.

Mazumdar et.al. (2018) India is fostering innovation with its favorable demography, affordable resource availability, and the development of supporting technologies like social media, cloud computing, mobile Internet, and big data. To address the plethora of issues facing us, we need to harness the wonders of science and create a "ideas economy." If we want to propel world-class innovation, there needs to be a healthy cycle of basic and applied science that crosses both university and industrial research. There is risk of underinvesting in science and technology as a nation and as corporations. It is required that science and technology will be acknowledged as areas of national economic development priority in the coming years. All aspects of economic development, after all, have their roots in ideas that were tested in scientific laboratories. India must therefore embrace entrepreneurship as an economic growth paradigm and make investments in accessible innovation. Objective is to establish a "ideas economy" that fosters constant value accumulation and, consequently, increases jobs and the economy by supporting creative start-ups.

Kasthuri et.al. (2018) The "Five A's" - awareness, access, lack of human resources, affordability, and accountability - outline the difficulties facing Indian healthcare. Examples are given to illustrate the lack of awareness, with little health knowledge found in a variety of demographic groups. An analysis of access to healthcare reveals the inadequate infrastructure and restricted physical reach in rural locations. The emphasis is on the human resource crisis in healthcare, which includes an insufficient distribution of workers. There is a desire for more government spending and improved regulation in light of India's high healthcare costs and the private sector's dominance. The necessity of enhanced communication skills among healthcare workers and the significance of accountability in the field are also emphasized in the study. The remark urges acknowledging and tackling these issues to guarantee improved health for all Indians.

Mohanan et.al. (2017) This paper highlights the importance of addressing governance concerns in order to improve the quality of healthcare at a systemic level. These concerns include enhancing public sector management, developing institutional capacity, and promoting a culture of data-driven policy. In an ideal scenario, household surveys and data from administrative sources would be utilized by state, local, and healthcare facilities to

monitor quality and ensure accountability in healthcare provision. To achieve this, investments in standardized and reliable data sets, as well as targeted capacity training and institutional incentives, would be required to support evidence-based policymaking. Collaboration between governments, implementing organizations, and researchers in India is crucial to elevate the standard of healthcare and enhance health outcomes.

Sharma et.al. (2016) The purpose of the study was to ascertain how middle-level medical officers in metropolitan settings that provide primary healthcare views regarding the way human resources are handled within their own organizational environments. Additionally, the study aimed to gauge the officers' level of satisfaction with the current HR procedures and to gather suggestions for enhancing HR management. Primary care facilities in India are overcrowded, underfunded, and situated in physically taxing areas. Any community-based organization's success depends on having motivated employees with skills and competences that match the demands of the workplace, which emphasizes the significance of an efficient HRM system. Achieving Universal Health Coverage—one of the Sustainable Development Goals of the United Nations—requires strengthening the public health system's ability to deliver services by altering the way it handles its staff.

Singh and Kumar et.al. (2016) In this paper total of 136 papers has been reviewed. In every nation, the pharmaceutical industry is essential to both social welfare and economic development. Due of its high financial and research requirements, this field has not received much attention from researchers in developing nations. Many important topics are covered in this paper, including reverse logistics, outsourcing logistics activities, green supply chain and inventory management, lean manufacturing, New product and process development, capacity planning, plant and network design, pipeline and product development management, and the implementation of e-business processes. Developing countries are allocating limited resources to research and development, as well as utilizing electronic media for promoting health awareness, enhancing processes and capabilities, ensuring sustainability, and addressing quality challenges, as indicated by the gaps identified in this research. Consequently, it is imperative that the pharmaceutical industry in these emerging nations be strengthened.

3. Description of Broad Area

3.1 Definitions of Key Terminology

3.1.1 Operational Challenge

The wide range of obstacles and problems that make it difficult for a company to run smoothly and successfully is referred to as operational challenges in the business world. These difficulties have the potential to interfere with a number of daily activities, affecting output, earnings, and eventually success (Slack et.al. 2013). Common operational challenges include: (Heizer et.al. 2021)

- Internal inefficiencies
- Resource constraints
- Supply chain disruptions
- Talent management
- Technological advancements
- Compliance with regulations

3.1.2 Startups

Startups in the healthcare industry are new businesses creating cutting-edge tools, goods, and services to fill gaps in the market. They take advantage of developments in areas such as telemedicine, artificial intelligence (AI), new product development, big data, and digital health to increase service efficiency, affordability, and accessibility. They are essential in fostering innovation and solving significant problems in healthcare. By 2025, the global market for healthcare startups is projected to grow to $1.3 trillion (Statista, 2023).

3.2 Research Gap

Based of review of literature on the broad area around operational challenges faced by healthcare startups in India in Pharma Sector, it has found that study around startups and study around healthcare has been done but there is no study done on the aspect of operational challenges faced by startups. Therefore, it is a need to study the connection and impact between these variables. The major gap areas identified in the literature are as follows:

- There is a gap in the literate for pharma startups operational challenges.
- There is a need to explore the impact faced by them because of these challenges
- A review of literature reveals, there were few research on pharmaceutical startups.

3.3 Problem statement

"Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India"

Healthcare start-ups in the pharmaceutical sector play a crucial role in driving innovation, improving patient outcomes, and addressing gaps in the healthcare ecosystem. However, these ventures encounter numerous operational challenges in India that hinder their growth and sustainability. The purpose of this problem statement is to highlight the operational difficulties faced by Indian healthcare start-ups in the pharmaceutical industry.

- Delay in adaption of technological advancements
- Unorganized Working Culture
- Supply chain and logistics planning
- Lack of Policy knowledge at Root Level
- Lack of consumer awareness about their rights

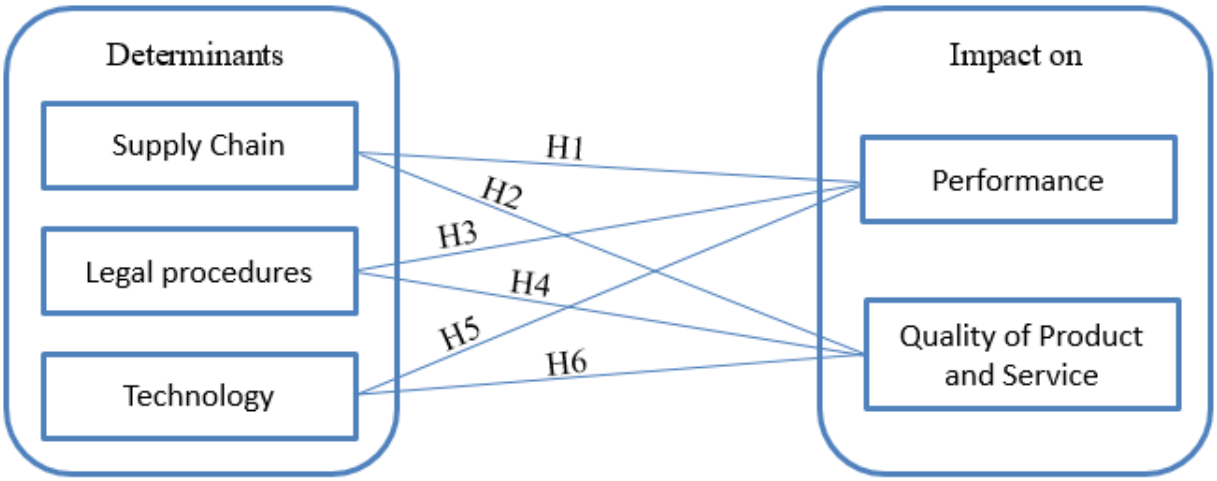
Through aggressively addressing these obstacles and cultivating a positive atmosphere, we can enable India's healthcare startups to thrive. Consequently, this will unleash a surge of creativity, enhance patient results, and catapult the pharmaceutical industry to unprecedented levels of vitality and influence.

4. Objectives of The Study

1. To identify the key operational challenges faced by healthcare startups in India.
2. To understand the impact of challenges on the overall performance of healthcare startups in India.
3. To analyze strategies adopted by successful healthcare startups to overcome operational challenges.

By understanding these challenges, stakeholders, policymakers, and industry players can work collaboratively to develop effective strategies and solutions to foster the growth of healthcare start-ups in the country.

5. Conceptual framework and Hypotheses



The formulated hypothesis to examine the aforementioned objectives is as follows: Better customer development and startup performance are made possible by SCM techniques for start-ups in poor nations. Start-up performance and customer development are directly improved by SCM methods. It was also discovered that customer development improved startup performance. Engaging in Supply Chain Management (SCM) improves a company's ability to draw in, serve, and keep consumers while also improving performance—even in the very uncertain world of startup companies in developing nations. Amedofu et.al. (2019)

H1: There is a positive impact of supply chain on the performance of organization.
H2: There is a positive impact of supply chain on the quality of Product and Service offered.

Although the industry's infrastructure and domestic companies' capacity for research and development have significantly increased recently, there are still many obstacles to overcome, primarily those associated with pricing regulation, sector fragmentation, and intellectual property. Festa et.al. (2022)

H3: There is positive impact of legal understanding on the performance of organization.
H4: There is positive impact of legal understanding on the quality of Product and Service offered.

Investigating how technology may propel start-ups' expansion and inventiveness has produced insightful information on the mechanisms supporting these companies' success. The data makes clear that technology fosters creativity by acting as a driver and enabler of start-ups' growth. The dynamic character of innovation processes, shaped by digital transformation and transparent cooperation, has reshaped the tactics and methods that entrepreneurs utilize to upend markets and provide value. Khuan et.al. (2023)

H5: There is positive impact of technology adoption on the performance of organization.
H6: There is positive impact of technology adoption on the quality of Product and Service offered.

6. Research Design and Methodology

6.1 Methodology to be adopted

- A Empirical research will be done to identify gaps and solutions
- Interview and questionnaire will be done with Startup owners and experts in the field of health, finance, startups, incubators and policy making
- Quantitative and qualitative analysis need to be done through Data triangulation to draw insights and conclusions.

6.2 Variable of the Study

6.2.1 Independent Variables
- Supply Chain
- Regulatory
- Human Resource

6.2.1 Dependent Variables
- Growth

- Quality of Product and Service

6.3 Data Collection

6.3.1 Primary Data
• Questionnaires
• Sampling
• Personal and Online Interviews
6.3.2 Secondary Data
- Research Papers
- Books
- Government Reports

6.4 Sample Selection

Demographics: India.
Population: Professionals working in Healthcare startups and promoters of Healthcare startups in India in Pharma domain
Sample Size – According to Invest India, population of exact number of active pharmaceutical company is around 3000. So, to maintain the relevancy of research we use Bukhari Sample Size Calculator 2020. According to calculator we try to collect data from at least 341 startups.
Sampling technique- Organizations will be chosen using convenience sampling, while respondents will be chosen by purposeful sampling.
Instrument – A standardized questionnaire will be employed to gauge the research variables.
Data collection technique: Primary data will be gathered via a combination of methods, including online forms and one-on-one conversations.

6.5 Data Analysis

After the pertinent data is gathered, it must be arranged, tabulated, and processed in order to be analyzed in relation to the research topic. All of this is a component of data analysis, which entails many processes, from categorizing the information gathered to interpreting

the data used in the study. Therefore, it must be done correctly to guarantee its applicability and effectiveness. Appropriate tools will be used in research project to test hypothesis and model.

7. Implications and expected outcome of the Research

- The research has the potential to raise the consciousness of stakeholders, investors, and policymakers by shedding light on the unique obstacles that start-ups encounter. This may result in better-informed choices and focused assistance programs.
- The results may help shape legislative and regulatory changes that would improve the startup climate by simplifying procedures, lowering entrance barriers, and promoting quicker expansion.
- A better awareness of the possibilities and potential risks associated with healthcare start-ups may persuade investors to commit more capital to the industry, improving the chances of successful projects receiving funding.
- Through collaboration across various stakeholders, including government agencies, academia, and start-ups and established players, the study may promote innovation and hasten the creation of innovative healthcare solutions.
- The analysis may help pinpoint areas of skill shortage and guide the creation of focused initiatives to draw in, develop, and keep skilled workers in the industry.

8. References

- *FICCI : Health*. (n.d.). Retrieved February 2, 2024, from https://ficci.in/api/sector_details/108
- Investment Opportunities in India's Healthcare Sector. NITI Aayog. (2021, March) https://www.niti.gov.in/sites/default/files/2021-03/InvestmentOpportunities_HealthcareSector_0.pdf
- Healthcare System in India, Healthcare India - IBEF. (n.d.). Retrieved February 5, 2024, from https://www.ibef.org/industry/healthcare-india

- Chakraborty, I., Ilavarasan, Pv., & Edirippulige, S. (2023). Critical success factors of startups in the e-health domain. Health Policy and Technology, 12, 100773. https://doi.org/10.1016/j.hlpt.2023.100773
- Jain, D. (2023). Regulation of Digital Healthcare in India: Ethical and Legal Challenges. Healthcare (Switzerland), 11(6). https://doi.org/10.3390/healthcare11060911
- Sreenivasan, A., & Suresh, M. (2022). Future of healthcare start-ups in the era of digitalization: bibliometric analysis. International Journal of Industrial Engineering and Operations Management, 4(1/2), 1–18. https://doi.org/10.1108/ijieom-10-2022-0046
- Festa, G., Kolte, A., Carli, M. R., & Rossi, M. (2022). Envisioning the challenges of the pharmaceutical sector in the Indian health-care industry: a scenario analysis. Journal of Business and Industrial Marketing, 37(8), 1662–1674. https://doi.org/10.1108/JBIM-07-2020-0365
- Chakraborty, I., Ilavarasan, P. V., & Edirippulige, S. (2021). Health-tech startups in healthcare service delivery: A scoping review. In Social Science and Medicine (Vol. 278). Elsevier Ltd. https://doi.org/10.1016/j.socscimed.2021.113949
- Fernando, E., Meyliana, Warnars, H. L. H. S., & Abdurachman, E. (2020). Key strategic issues pharmaceutical industry of SCM: A systematic literature review. In Bulletin of Electrical Engineering and Informatics (Vol. 9, Issue 2, pp. 808–817). Institute of Advanced Engineering and Science. https://doi.org/10.11591/eei.v9i2.1264
- Kasthuri, A. (2018). Challenges to Healthcare in India - The Five A's. Indian Journal of Community Medicine : Official Publication of Indian Association of Preventive & Social Medicine, 43(3), 141. https://doi.org/10.4103/IJCM.IJCM_194_18
- Abhinandan, M., Chethana, M., & Bangera, M. S. (2018). "HRM Issues and Challenges in Health Care Units in India." 20, 62–68. https://doi.org/10.9790/487X-2003076268
- Mazumdar-Shaw, K. (2018). Leveraging affordable innovation to tackle India's healthcare challenge. IIMB Management Review, 30(1), 37–50. https://doi.org/10.1016/j.iimb.2017.11.003

- Mohanan, M., Hay, K., & Mor, N. (2017). Quality Of Health Care In India: Challenges, Priorities, And The Road Ahead. Https://Doi.Org/10.1377/Hlthaff.2016.0676, 35(10), 1753–1758. https://doi.org/10.1377/HLTHAFF.2016.0676
- Singh, R. K., Kumar, R., & Kumar, P. (2016). Strategic issues in pharmaceutical supply chains: a review. International Journal of Pharmaceutical and Healthcare Marketing, 10(3), 234–257. https://doi.org/10.1108/IJPHM-10-2015-0050
- Sharma, N., Venkat Raman, A., Dhaked, S., & Kumar, P. (2016). Human resource challenges in indian public health services. South Asian Journal of Human Resources Management, 3(2), 173–190. https://doi.org/10.1177/2322093716677414
- Global digital health market forecast 2025 | Statista. (n.d.). Retrieved February 20, 2024, from https://www.statista.com/statistics/1092869/global-digital-health-market-size-forecast/
- Slack, N., Brandon-Jones, A., & Johnston, R. (n.d.). Operations Management. www.pearson-books.com
- Heizer, J., Render, B., & Munson, C. (Charles L. (n.d.). Operations management : sustainability and supply chain management. Retrieved February 20, 2024, from https://www.pearson.com/nl/en_NL/higher-education/subject-catalogue/business-and-management/heizer-operations-management-sustainability-and-supply-chain.html
- Bajpai, V. (2014). The Challenges Confronting Public Hospitals in India, Their Origins, and Possible Solutions. *Advances in Public Health*, *2014*, 1–27. https://doi.org/10.1155/2014/898502
- Patel, V., Parikh, R., Nandraj, S., Balasubramaniam, P., Narayan, K., Paul, V. K., Kumar, A. K. S., Chatterjee, M., & Reddy, K. S. (2015). Assuring health coverage for all in India. *The Lancet*, *386*(10011), 2422–2435. https://doi.org/10.1016/S0140-6736(15)00955-1
- Pharmaceutical Industry in India: Exploring Investment Opportu... (n.d.). Retrieved February 22, 2024, from https://www.investindia.gov.in/sector/pharmaceuticals
- Bukhari, S. A. (2020). Bukhari Sample Size Calculator 2020. https://doi.org/10.13140/RG.2.2.27730.58563

- Amedofu, M., Asamoah, D., & Agyei-Owusu, B. (2019). Effect of supply chain management practices on customer development and start-up performance. Benchmarking, 26(7), 2267–2285. https://doi.org/10.1108/BIJ-08-2018-0230/FULL/XML
- Khuan, H., Andriani, E., & Rukmana, A. Y. (2023). The Role of Technology in Fostering Innovation and Growth in Start-up Businesses Article Info ABSTRACT. In West Science Journal Economic and Entrepreneurship (Vol. 1, Issue 03).

MANAV RACHNA
vidyanatariksha

Swami Vivekananda Library and Resource Centre
Manav Rachna University

SIMILARITY VERIFICATION CERTIFICATE

Title: Operational Challenges faced by Healthcare Startups in Pharma Sector in India

Researcher: Vikesh Lalit

Registration Number: MRUMCDNO12K210040

Supervisor: Dr. Yogita Sharma.

Department: Management

This is to certify that the above mentioned Short Synopsis/Thesis was scanned for similarity index through Turnitin Software on 23 with submission ID 230224.229 and the similarity index was found to be 4 %. The complete report running into 22 Pages, 4623 Word count with File Size 2532 KB is being forwarded to the Research Supervisor/DRC/DRB for review.

Date: 23, February 2024

MANAV RACHNA UNIVERSITY FARIDABAD
23/2/24

The complete report of the above Short Synopsis/Thesis has been reviewed and the similarity index is below the accepted norms as per the University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations 2018. The Short Synopsis/Thesis may be considered for further processing

Vikesh Lalit
23/2/24
Research Scholar

23/2/24
Research Supervisor

Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India

by Vikesh Lalit

Submission date: 23-Feb-2024 10:55AM (UTC+0530)
Submission ID: 2302242291
File name: ges_Faced_by_Healthcare_Start-ups_in_Pharma_Sector_in_India.docx (236.61K)
Word count: 4623
Character count: 29336

Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India

SHORT SYNOPSIS

by

Vikesh Lalit
MRUMCDN012K210040

Under the supervision of

Dr. Yogita Sharma
Professor
Manav Rachna University

Department of Management
School of Management and Commerce

Year *2024*

ABSTRACT

Healthcare start-ups that promise to revolutionize drug discovery, delivery, and accessibility are booming in the Indian pharmaceutical industry. But turning their creative ideas into profitable ventures means negotiating a challenging operational environment. This study explores these issues by looking at the complex rules, financial limitations, shortages of skilled labor, and complex supply chains that prevent these businesses from expanding and succeeding. The scenario gets more complicated when trying to construct ethical and sustainable income models, engage doctors with new technologies, and build trust. Through the examination of case studies, stakeholder interviews, and literature analysis, this research attempts to provide a thorough knowledge of these operational constraints and identify feasible solutions. The results will provide insightful information to help start-ups navigate

the difficult pharmaceutical industry, legislators create legislation that will help, and investors weigh the prospects and risks in this fast-paced industry. In the end, getting past these operational obstacles would enable healthcare start-ups to reach their full potential and add to India's pharmaceutical industry's innovative, efficient, and more accessible landscape.

Keyword: Healthcare, Startup, Pharma, Supply Chain, Operational Challenges

Operational Challenges Faced by Healthcare Start-ups in Pharma Sector in India

ORIGINALITY REPORT

4% SIMILARITY INDEX

Excluding matches less than 14 words

1% INTERNET SOURCES

2% PUBLICATIONS

2% STUDENT PAPERS

PRIMARY SOURCES

1	www.slideshare.net Internet Source	1%
2	Submitted to Global College Malta Student Paper	1%
3	Rajesh Kr. Singh, Ravinder Kumar, Pravin Kumar. "Strategic issues in pharmaceutical supply chains: a review", International Journal of Pharmaceutical and Healthcare Marketing, 2016 Publication	1%
4	Submitted to University of Glamorgan Student Paper	<1%
5	Submitted to University of Bedfordshire Student Paper	<1%
6	Suranjan Majumder, Subham Roy, Arghadeep Bose, Indrajit Roy Chowdhury. "Understanding regional disparities in healthcare quality and accessibility in West	<1%

Bengal, India: A multivariate analysis", Regional Science Policy & Practice, 2022
Publication

Exclude quotes	Off	Exclude matches	< 14 words
Exclude bibliography	On		